

**Following the Security Alert sent by CERT-MU on 27<sup>th</sup> June 2017, please find below the advisory on the Petya Global Ransomware Attack:**

## **The Massive Petya Global Ransomware Attack**

**Original Issue Date:** 27<sup>th</sup> June 2017

**Severity Rating:** High

### **Description:**

A major Ransomware Cyber Attack known as “**Petya**” is creating havoc across the world. Many critical systems, organisations, airports, banks and Government departments in Europe as well as in other countries have already been affected. The new variant of the Petya Ransomware is spreading rapidly with the help of same Windows SMBv1 vulnerability that the WannaCry Ransomware exploited and uses the NSA EternalBlue Exploit.

### **Affected Systems:**

Windows XP through 8.1 which do not have the latest security updates are at risk of infection. (Windows 10 is not vulnerable).

### **Methodology of Attack:**

1. Petya uses the NSA Eternalblue exploit but also spreads in internal networks with Windows Management Instrumentation Command-line (WMIC) and PsEXEC.
2. The Ransomware works differently from any other ransomware malware. Unlike other traditional ransomware, Petya does not encrypt files on a targeted system one by one.
3. Instead, Petya reboots victims computers and encrypts the hard drive's master file table (MFT) and renders the master boot record (MBR) inoperable, restricting access to the full system by seizing information about file names, sizes, and location on the physical disk.

4. Then the Petya ransomware replaces the computer's MBR with its own malicious code that displays the ransom note, demanding \$300 in Bitcoins and leaves computers unable to boot.

```
fu' t
0123456789abcdef
Repairing file system on C:
The type of the file system is NTFS.
One of your disks contains errors and needs to be repaired. This process
may take several hours to complete. It is strongly recommended to let it
complete.
WARNING: DO NOT TURN OFF YOUR PC! IF YOU ABORT THIS PROCESS, YOU COULD
DESTROY ALL OF YOUR DATA! PLEASE ENSURE THAT YOUR POWER CABLE IS PLUGGED
IN!
CHKDSK is repairing sector
Please reboot your computer!
Decrypting sector
Oops, your important files are encrypted.
If you see this text, then your files are no longer accessible, because they
have been encrypted. Perhaps you are busy looking for a way to recover your
files, but don't waste your time. Nobody can recover your files without our
decryption service.
We guarantee that you can recover all your files safely and easily. All you
need to do is submit the payment and purchase the decryption key.
Please follow the instructions:
1. Send $300 worth of Bitcoin to following address:

2. Send your Bitcoin wallet ID and personal installation key to e-mail
wowsmith123456@posteo.net. Your personal installation key:
If you already purchased your key, please enter it below.
Key:
Incorrect key! Please try again.
af
```

#### Precautions to be taken to protect from this ransomware campaign:

- Aggressively **patch and update** Anti-Virus signatures (including [MS17-010](#)).
- Warn users **not to open attachments/enable macros** on suspicious emails. This may be the entry vector so diligence is warranted
- If you suspect you may be a victim, install [Windows Defender](#); and run to remove the malware on systems
- If patching is not possible (i.e. if the machines cannot be updated with the March MS17-010), temporarily block SMB connections to limit the spread. This will likely impact your organization's services. The following [workarounds](#) may be helpful in your situation:
  - Disable SMBv1
  - For customers running Windows Vista and later, see [Microsoft Knowledge Base Article 2696547](#).

**Users are strongly recommended not to pay the ransom. Encrypted files should be restored from back-ups where possible.**

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